

RECEIVED

Page 1 of 7

APR 04 2002

RECEIVED

TECH CENTER 1600/2900



MAR 15 2002

TECH CENTER 1600/2900

ENTERED

1652

RAW SEQUENCE LISTING

DATE: 03/04/2002

PATENT APPLICATION: US/09/977,827

TIME: 14:46:06

Input Set : A:\PTO.VSK.txt

Output Set: N:\CRF3\03042002\I977827.raw

3 <110> APPLICANT: Aerts, Johannes Maria F.G.

5 <120> TITLE OF INVENTION: A human chitinase, its recombinant production, its use for decomposing

6 chitin, its use in therapy or prophylaxis against infectious diseases.

8 <130> FILE REFERENCE: Docket 294-32 DIVII/CON

C--> 10 <140> CURRENT APPLICATION NUMBER: US/09/977,827

11 <141> CURRENT FILING DATE: 2001-10-15

13 <160> NUMBER OF SEQ ID NOS: 17

15 <170> SOFTWARE: PatentIn version 3.1

17 <210> SEQ ID NO: 1

18 <211> LENGTH: 20

19 <212> TYPE: DNA

20 <213> ORGANISM: Artificial Sequence

22 <220> FEATURE:

23 <223> OTHER INFORMATION: Degenerate sense oligonucleotide

25 <220> FEATURE:

26 <221> NAME/KEY: misc_feature

27 <222> LOCATION: (12)..(12)

28 <223> OTHER INFORMATION: N may be any nucleotide

31 <400> SEQUENCE: 1

W--> 32 tgytayttya cnaaytgggc 20

35 <210> SEQ ID NO: 2

36 <211> LENGTH: 24

37 <212> TYPE: DNA

38 <213> ORGANISM: Artificial Sequence

40 <220> FEATURE:

41 <223> OTHER INFORMATION: Degenerate anti-sense nucleotide

43 <220> FEATURE:

44 <221> NAME/KEY: misc_feature

45 <222> LOCATION: (7)..(16)

46 <223> OTHER INFORMATION: N represents inosine

49 <400> SEQUENCE: 2

W--> 50 ccartcnarr tynacncrt craa 24

53 <210> SEQ ID NO: 3

54 <211> LENGTH: 1643

55 <212> TYPE: DNA

56 <213> ORGANISM: Homo sapiens

58 <400> SEQUENCE: 3

59 ctgagctgca tcatggtgcg gtctgtggcc tgggcagggt tcatggtcct gctgatgatc 60

61 ccatggggct ctgtccaaa actggtctgc tacttcacca actgggcccc gtacagacag 120

63 ggggaggctc gttcctgccc caaggacttg gacccagcc ttgacacca cctcatctac 180

65 gccttcgctg gcatgaccaa ccaccagctg agcaccactg agtggaatga cgagactctc 240

67 taccaggagt tcaatggcct gaagaagatg aatcccaagc tgaagaccct gttagccatc 300

69 ggaggctgga atttcggcac tcagaagttc acagatatgg tagccacggc caacaaccgt 360

RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/977,827

DATE: 03/04/2002

TIME: 14:46:06

Input Set : A:\PTO.VSK.txt

Output Set: N:\CRF3\03042002\I977827.raw

```

71 cagacctttg tcaactcggc catcagggttt ctgcgcaaatt acagctttga cggccttgac 420
73 cttgactggg agtaccagg aagccagggg agccctgccg tagacaagga gcgcttcaca 480
75 accctggtag aggacttggc caatgccttc cagcaggaag cccagacctc aggggaaggaa 540
77 cgccttcttc tgagtgcagc ggttccagct gggcagacct atgtggatgc tggatacgag 600
79 gtggacaaaa tcgccagaa cctggatttt gtcaacctta tggcctacga cttccatggc 660
81 tcttgggaga aggtcacggg acataacagc cccctctaca agaggcaaga agagagtggc 720
83 gcagcagcca gcctcaacgt ggatgctgct gtgcaacagt ggctgcagaa ggggacccct 780
85 gccagcaagc tgatccttgg catgcctacc tacggacgct ccttcacact ggctcctca 840
87 tcagacacca gagtgggggc cccagccaca ggggtctggc ctccaggccc ctteaccaag 900
89 gaaggaggga tgctggccta ctatgaagtc tgctcctgga agggggccac caaacagaga 960
91 atccaggatc agaagggtgc ctacatcttc cgggacaacc agtgggtggg ctttgatgat 1020
93 gtggagagct tcaaaaccaa ggtcagctat ctgaagcaga agggactggg cggggccatg 1080
95 gtctgggcac tggacttaga tgactttgcc ggcttctcct gcaaccaggg ccgatacccc 1140
97 ctcatccaga cgctacggc ggaactgagt cttccatact tgcttcagg caccaccag 1200
99 cttgaagttc caaaaccagg tcagccctct gaacctgagc atggccccag ccctggacaa 1260
101 gacacgttct gccagggcaa agctgatggg ctctatccca atcctcggga acggtccagc 1320
103 ttctacagct gtgcagcggg gcggctgttc cagcaaagct gcccagacag cctggtgttc 1380
105 agcaactcct gcaaatgctg cacctggaat tgagtcgtaa agccctcca gtccagcttt 1440
107 gaggtcgggc ccaggatcac tctacagcct gcctcctggg ttttcctggg ggccgcaatc 1500
109 tggtcctgc aggcctttct gtggtcttcc tttatccagg ctttctgctc tcagccttgc 1560
111 cttccttttt tctgggtctc ctgggctgcc ctttcaactt gcaaaataaa tctttggttt 1620
113 gtgccccctc tcaaaaaaaaa aaa 1643
116 <210> SEQ ID NO: 4
117 <211> LENGTH: 466
118 <212> TYPE: PRT
119 <213> ORGANISM: Homo sapiens
121 <400> SEQUENCE: 4
123 Met Val Arg Ser Val Ala Trp Ala Gly Phe Met Val Leu Leu Met Ile
124 1 5 10 15
127 Pro Trp Gly Ser Ala Ala Lys Leu Val Cys Tyr Phe Thr Asn Trp Ala
128 20 25 30
131 Gln Tyr Arg Gln Gly Glu Ala Arg Phe Leu Pro Lys Asp Leu Asp Pro
132 35 40 45
135 Ser Leu Cys Thr His Leu Ile Tyr Ala Phe Ala Gly Met Thr Asn His
136 50 55 60
139 Gln Leu Ser Thr Thr Glu Trp Asn Asp Glu Thr Leu Tyr Gln Glu Phe
140 65 70 75 80
143 Asn Gly Leu Lys Lys Met Asn Pro Lys Leu Lys Thr Leu Leu Ala Ile
144 85 90 95
147 Gly Gly Trp Asn Phe Gly Thr Gln Lys Phe Thr Asp Met Val Ala Thr
148 100 105 110
151 Ala Asn Asn Arg Gln Thr Phe Val Asn Ser Ala Ile Arg Phe Leu Arg
152 115 120 125
155 Lys Tyr Ser Phe Asp Gly Leu Asp Leu Asp Trp Glu Tyr Pro Gly Ser
156 130 135 140
159 Gln Gly Ser Pro Ala Val Asp Lys Glu Arg Phe Thr Thr Leu Val Gln
160 145 150 155 160
163 Asp Leu Ala Asn Ala Phe Gln Gln Glu Ala Gln Thr Ser Gly Lys Glu
164 165 170 175

```

RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/977,827

DATE: 03/04/2002

TIME: 14:46:06

Input Set : A:\PTO.VSK.txt

Output Set: N:\CRF3\03042002\I977827.raw

```

167 Arg Leu Leu Leu Ser Ala Ala Val Pro Ala Gly Gln Thr Tyr Val Asp
168      180      185      190
171 Ala Gly Tyr Glu Val Asp Lys Ile Ala Gln Asn Leu Asp Phe Val Asn
172      195      200      205
175 Leu Met Ala Tyr Asp Phe His Gly Ser Trp Glu Lys Val Thr Gly His
176      210      215      220
179 Asn Ser Pro Leu Tyr Lys Arg Gln Glu Glu Ser Gly Ala Ala Ala Ser
180 225      230      235      240
183 Leu Asn Val Asp Ala Ala Val Gln Gln Trp Leu Gln Lys Gly Thr Pro
184      245      250      255
187 Ala Ser Lys Leu Ile Leu Gly Met Pro Thr Tyr Gly Arg Ser Phe Thr
188      260      265      270
191 Leu Ala Ser Ser Ser Asp Thr Arg Val Gly Ala Pro Ala Thr Gly Ser
192      275      280      285
195 Gly Thr Pro Gly Pro Phe Thr Lys Glu Gly Gly Met Leu Ala Tyr Tyr
196      290      295      300
199 Glu Val Cys Ser Trp Lys Gly Ala Thr Lys Gln Arg Ile Gln Asp Gln
200 305      310      315      320
203 Lys Val Pro Tyr Ile Phe Arg Asp Asn Gln Trp Val Gly Phe Asp Asp
204      325      330      335
207 Val Glu Ser Phe Lys Thr Lys Val Ser Tyr Leu Lys Gln Lys Gly Leu
208      340      345      350
211 Gly Gly Ala Met Val Trp Ala Leu Asp Leu Asp Asp Phe Ala Gly Phe
212      355      360      365
215 Ser Cys Asn Gln Gly Arg Tyr Pro Leu Ile Gln Thr Leu Arg Gln Glu
216      370      375      380
219 Leu Ser Leu Pro Tyr Leu Pro Ser Gly Thr Pro Glu Leu Glu Val Pro
220 385      390      395      400
223 Lys Pro Gly Gln Pro Ser Glu Pro Glu His Gly Pro Ser Pro Gly Gln
224      405      410      415
227 Asp Thr Phe Cys Gln Gly Lys Ala Asp Gly Leu Tyr Pro Asn Pro Arg
228      420      425      430
231 Glu Arg Ser Ser Phe Tyr Ser Cys Ala Ala Gly Arg Leu Phe Gln Gln
232      435      440      445
235 Ser Cys Pro Thr Gly Leu Val Phe Ser Asn Ser Cys Lys Cys Cys Thr
236      450      455      460
239 Trp Asn
240 465

```

243 <210> SEQ ID NO: 5

244 <211> LENGTH: 1713

245 <212> TYPE: DNA

246 <213> ORGANISM: Homo sapiens

248 <400> SEQUENCE: 5

```

249 ctgagctgca tcatggtgcg gtctgtggcc tgggcagggt tcatggtcct gctgatgac 60
251 ccatggggct ctgctccaaa actggtctgc tacttcacca actgggcca gtacagacag 120
253 ggggaggctc gcttctgccc caaggacttg gacccagcc tttgcacca cctcatctac 180
255 gccttcgctg gcatgaccaa ccaccagctg agcaccactg agtggaatga cgagactctc 240
257 taccaggagt tcaatggcct gaagaagatg aatcccaagc tgaagaccct gttagccatc 300
259 ggaggctgga atttcggcac tcagaagttc acagatatgg tagccacggc caacaaccgt 360

```

RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/977,827

DATE: 03/04/2002

TIME: 14:46:06

Input Set : A:\PTO.VSK.txt

Output Set: N:\CRF3\03042002\I977827.raw

```

261 cagacctttg tcaactcggc catcagggtt ctgcgcaaat acagctttga cggccttgac 420
263 cttgactggg agtaccacagg aagccagggg agccctgccg tagacaagga gcgcttcaca 480
265 accctgggtac aggacttggc caatgccttc cagcaggaag cccagacctc aggggaaggaa 540
267 cgccttcttc tgagtgcagc ggttccagct gggcagacct atgtggatgc tggatacgag 600
269 gtggacaaaa tcgccagaa cctggatttt gtcaacctta tggcctacga cttccatggc 660
271 tcttgggaga aggtcacggg acataacagc cccctctaca agaggcaaga agagagtgg 720
273 gcagcagcca gcctcaacgt ggatgctgct gtgcaacagt ggctgcagaa ggggaccct 780
275 gccagcaagc tgatccttgg catgcctacc tacggacgct ccttcacact ggcctcctca 840
277 tcagacacca gagtgggggg cccagccaca gggctctgga ctccaggccc cttcaccaag 900
279 gaaggaggga tgctggccta ctatgaagtc tgctcctgga aggggggccac caaacagaga 960
281 atccaggatc agaagggtgcc ctacatcttc cgggacaacc agtgggtggg ctttgatgat 1020
283 gtggagagct tcaaaaccaa ggtagctat ctgaagcaga agggactggg cggggccatg 1080
285 gtctgggcac tggacttaga tgactttgcc ggcttctcct gcaaccaggg ccgatacccc 1140
287 ctcatccaga cgctacggca ggaactgaat gggtaaagcc ttaactgcct gtcacatgtg 1200
289 aggccagggtg ttgcctgtgg cactgtgctt cagctgtagg tcttccatac ttgccttcag 1260
291 gcaccccaga gcttgaagtt ccaaaaccag gtcagccctc tgaacctgag catggcccaa 1320
293 gccctggaca agacacgttc tgccagggca aagctgatgg gctctatccc aatcctcggg 1380
295 aacggtccag cttctacagc tgtgcagcgg ggcggctggt ccagcaaagc tgcccagacag 1440
297 gcctggtggt cagcaactcc tgcaaatgct gcacctggaa ttgagtcgta aagcccctcc 1500
299 agtccagctt tgaggctggg cccaggatca ctctacagcc tgccctcctgg gttttcctgg 1560
301 gggccgcaat ctggctcctg caggcctttc tgtggtcttc ctttatccag gctttctgct 1620
303 ctcagccttg ccttcctttt ttctgggtct cctgggctgc ccctttcact tgcaaaaataa 1680
305 atctttggtt tgtgcccctc aaaaaaaaaa aaa 1713

```

308 <210> SEQ ID NO: 6

309 <211> LENGTH: 387

310 <212> TYPE: PRT

311 <213> ORGANISM: Homo sapiens

313 <400> SEQUENCE: 6

```

315 Met Val Arg Ser Val Ala Trp Ala Gly Phe Met Val Leu Leu Met Ile
316 1 5 10 15
319 Pro Trp Gly Ser Ala Ala Lys Leu Val Cys Tyr Phe Thr Asn Trp Ala
320 20 25 30
323 Gln Tyr Arg Gln Gly Glu Ala Arg Phe Leu Pro Lys Asp Leu Asp Pro
324 35 40 45
327 Ser Leu Cys Thr His Leu Ile Tyr Ala Phe Ala Gly Met Thr Asn His
328 50 55 60
331 Gln Leu Ser Thr Thr Glu Trp Asn Asp Glu Thr Leu Tyr Gln Glu Phe
332 65 70 75 80
335 Asn Gly Leu Lys Lys Met Asn Pro Lys Leu Lys Thr Leu Leu Ala Ile
336 85 90 95
339 Gly Gly Trp Asn Phe Gly Thr Gln Lys Phe Thr Asp Met Val Ala Thr
340 100 105 110
343 Ala Asn Asn Arg Gln Thr Phe Val Asn Ser Ala Ile Arg Phe Leu Arg
344 115 120 125
347 Lys Tyr Ser Phe Asp Gly Leu Asp Leu Asp Trp Glu Tyr Pro Gly Ser
348 130 135 140
351 Gln Gly Ser Pro Ala Val Asp Lys Glu Arg Phe Thr Thr Leu Val Gln
352 145 150 155 160
355 Asp Leu Ala Asn Ala Phe Gln Gln Glu Ala Gln Thr Ser Gly Lys Glu

```

RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/977,827

DATE: 03/04/2002

TIME: 14:46:06

Input Set : A:\PTO.VSK.txt

Output Set: N:\CRF3\03042002\I977827.raw

```

356          165          170          175
359 Arg Leu Leu Leu Ser Ala Ala Val Pro Ala Gly Gln Thr Tyr Val Asp
360          180          185          190
363 Ala Gly Tyr Glu Val Asp Lys Ile Ala Gln Asn Leu Asp Phe Val Asn
364          195          200          205
367 Leu Met Ala Tyr Asp Phe His Gly Ser Trp Glu Lys Val Thr Gly His
368          210          215          220
371 Asn Ser Pro Leu Tyr Lys Arg Gln Glu Glu Ser Gly Ala Ala Ala Ser
372 225          230          235          240
375 Leu Asn Val Asp Ala Ala Val Gln Gln Trp Leu Gln Lys Gly Thr Pro
376          245          250          255
379 Ala Ser Lys Leu Ile Leu Gly Met Pro Thr Tyr Gly Arg Ser Phe Thr
380          260          265          270
383 Leu Ala Ser Ser Ser Asp Thr Arg Val Gly Ala Pro Ala Thr Gly Ser
384          275          280          285
387 Gly Thr Pro Gly Pro Phe Thr Lys Glu Gly Gly Met Leu Ala Tyr Tyr
388          290          295          300
391 Glu Val Cys Ser Trp Lys Gly Ala Thr Lys Gln Arg Ile Gln Asp Gln
392 305          310          315          320
395 Lys Val Pro Tyr Ile Phe Arg Asp Asn Gln Trp Val Gly Phe Asp Asp
396          325          330          335
399 Val Glu Ser Phe Lys Thr Lys Val Ser Tyr Leu Lys Gln Lys Gly Leu
400          340          345          350
403 Gly Gly Ala Met Val Trp Ala Leu Asp Leu Asp Asp Phe Ala Gly Phe
404          355          360          365
407 Ser Cys Asn Gln Gly Arg Tyr Pro Leu Ile Gln Thr Leu Arg Gln Glu
408          370          375          380
411 Leu Asn Gly
412 385
415 <210> SEQ ID NO: 7
416 <211> LENGTH: 11
417 <212> TYPE: PRT
418 <213> ORGANISM: Homo sapiens
420 <400> SEQUENCE: 7
422 Phe Asp Gly Leu Asp Leu Asp Trp Glu Tyr Pro
423 1          5          10
426 <210> SEQ ID NO: 8
427 <211> LENGTH: 11
428 <212> TYPE: PRT
429 <213> ORGANISM: Autographa californica
431 <400> SEQUENCE: 8
433 Phe Asp Gly Val Asp Ile Asp Trp Glu Phe Pro
434 1          5          10
437 <210> SEQ ID NO: 9
438 <211> LENGTH: 11
439 <212> TYPE: PRT
440 <213> ORGANISM: Manduca sexta
442 <400> SEQUENCE: 9
444 Phe Asp Gly Leu Asp Leu Asp Trp Glu Tyr Pro

```

VERIFICATION SUMMARY

PATENT APPLICATION: US/09/977,827

DATE: 03/04/2002

TIME: 14:46:07

Input Set : A:\PTO.VSK.txt

Output Set: N:\CRF3\03042002\I977827.raw

L:10 M:270 C: Current Application Number differs, Replaced Current Application Number

L:32 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:1

L:50 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:2